

IN THE CLAIMS:

Applicants have amended claims 1, 10, 15, 28, 29, 31-35, 41, and 43-48 herein. Please cancel claims 2, 3, 5, 6, 16, 17, 19, 21, and 22 without prejudice or disclaimer. Please note that all claims currently pending and under consideration in the referenced application are shown below. Please enter these claims as amended. This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims:

1. (Currently amended) A melt-pourable explosive composition comprising:
30 weight percent to 70 weight percent of ~~one or more organic binders comprising at least one member selected from the group consisting of a mononitro-substituted phenyl alkyl ether and a dinitro-substituted phenyl alkyl ether~~ an organic binder comprising 2,4-dinitroanisole, the one or more organic binders collectively exhibiting a total energy of detonation lower than trinitrotoluene and collectively having a total melting point in a range of 80°C to 115°C;
5 weight percent to 35 weight percent of ~~one or more oxidizers~~ at least one oxidizer; and
5 weight percent to 35 weight percent of ~~one or more reactive metallic fuels~~ at least one reactive metallic fuel,
wherein the melt-pourable explosive composition is pourable at a temperature in a range of 80°C to 115°C.

Claims 2-6 (Canceled)

7. (Previously Presented) The melt-pourable explosive composition of claim 1, further comprising an N-alkyl-nitroaniline processing aid.

8. (Previously Presented) The melt-pourable explosive composition of claim 1, further comprising N-methyl-nitroaniline as a processing aid.

9. (Previously Presented) The melt-pourable explosive composition of claim 1, further comprising at least one processing aid selected from the group consisting of N-alkyl nitroaniline and N-aryl-nitroaniline, the at least one processing aid accounting for not more than 1 weight percent of the melt-pourable explosive composition.

10. (Currently amended) The melt-pourable explosive composition of claim 1, wherein the ~~one or more reactive metallic fuels comprise~~ at least one reactive metallic fuel comprises aluminum.

11. (Previously Presented) The melt-pourable explosive composition of claim 1, wherein the melt-pourable explosive composition undergoes an onset of thermal decomposition at a temperature that is at least 55.5°C higher than the temperature at which the melt-pourable explosive composition becomes pourable.

12. (Previously Presented) The melt-pourable explosive composition of claim 1, wherein the melt-pourable explosive composition exhibits a card gap value of less than 105.

13. (Previously Presented) The melt-pourable explosive composition of claim 1, wherein the melt-pourable explosive composition exhibits a card gap value of less than 85.

14. (Previously Presented) The melt-pourable explosive composition of claim 1, wherein the melt-pourable explosive composition has a total energy of detonation of 11.6 kJ/cc to 14.2 kg/cc.

15. (Currently amended) A melt-pourable explosive composition comprising:
30 weight percent to 70 weight percent of ~~one or more organic binders comprising at least one member selected from the group consisting of a mononitro-substituted phenyl alkyl ether and a dinitro-substituted phenyl alkyl ether~~ an organic binder comprising 2,4-dinitroanisole, the one or more organic binders collectively exhibiting a total energy of detonation lower than trinitrotoluene and collectively having a total melting point in a range of 80°C to 115°C;
5 weight percent to 35 weight percent of ~~one or more inorganic oxidizers~~ at least one inorganic oxidizer; and
5 weight percent to 35 weight percent of ~~one or more reactive metallic fuels~~ at least one reactive metallic fuel,
wherein the melt-pourable explosive composition is pourable at a temperature in a range of 80°C to 115°C.

Claims 16-17 (Canceled)

18. (Withdrawn) The melt-pourable explosive composition of claim 15, wherein the one or more organic binders comprise at least one member selected from the group consisting of nitrotoluenes, dinitrotoluenes, and dinitronaphthalenes.

Claims 19-22 (Canceled)

23. (Withdrawn) The melt-pourable explosive composition of claim 15, wherein the one or more organic binders comprise at least one heterocyclic compound.

24. (Previously Presented) The melt-pourable explosive composition of claim 15, further comprising an N-alkyl-nitroaniline processing aid.

25. (Previously Presented) The melt-pourable explosive composition of claim 15, further comprising N-methyl-nitroaniline as a processing aid.

26. (Withdrawn) The melt-pourable explosive composition of claim 15, wherein the one or more organic binders comprise an N-aryl-nitroaniline processing aid.

27. (Previously Presented) The melt-pourable explosive composition of claim 15, further comprising at least one processing aid selected from the group consisting of N-alkyl nitroaniline and N-aryl-nitroaniline, the at least one processing aid accounting for not more than 1 weight percent of the melt-pourable explosive composition.

28. (Currently amended) The melt-pourable explosive composition of claim 15, wherein the ~~one or more inorganic oxidizers comprise~~ at least one inorganic oxidizer comprises at least one member selected from the group consisting of perchlorates and nitrates.

29. (Currently amended) The melt-pourable explosive composition of claim 15, wherein the ~~one or more inorganic oxidizers comprise~~ at least one inorganic oxidizer comprises at least one perchlorate selected from the group consisting of ammonium perchlorate, sodium perchlorate, and potassium perchlorate.

30. (Withdrawn) The melt-pourable explosive composition of claim 15, wherein the one or more inorganic oxidizers comprise at least one nitrate selected from the group consisting of ammonium nitrate, sodium nitrate, strontium nitrate, and potassium nitrate.

31. (Currently amended) The melt-pourable explosive composition of claim 15, wherein the ~~one or more inorganic oxidizers have~~ at least one inorganic oxidizer has an average particle size of 3 microns to 60 microns.

32. (Currently amended) The melt-pourable explosive composition of claim 15, wherein the ~~one or more inorganic oxidizers have at least one inorganic oxidizer has~~ an average particle size of 5 microns to 20 microns.

33. (Currently amended) The melt-pourable explosive composition of claim 15, wherein at least 95 weight percent of the melt-pourable explosive composition comprises a combination of the ~~one or more organic binders~~organic binder, the ~~one or more inorganic oxidizers~~ at least one inorganic oxidizer, and the ~~one or more reactive metallic fuels~~ at least one reactive metallic fuel.

34. (Currently amended) The melt-pourable explosive composition of claim 15, wherein at least 99 weight percent of the melt-pourable explosive composition comprises a combination of the ~~one or more organic binders~~ organic binder, the ~~one or more inorganic oxidizers~~ at least one inorganic oxidizer, and the ~~one or more reactive metallic fuels~~ at least one reactive metallic fuel.

35. (Currently amended) The melt-pourable explosive composition of claim 15, wherein the ~~one or more reactive metallic fuels~~ comprise at least one reactive metallic fuel comprises aluminum.

36. (Previously Presented) The melt-pourable explosive composition of claim 15, wherein the melt-pourable explosive composition undergoes an onset of thermal decomposition at a temperature that is at least 55.5°C higher than the temperature at which the melt-pourable explosive composition becomes pourable.

37. (Previously Presented) The melt-pourable explosive composition of claim 15, wherein the melt-pourable explosive composition exhibits a card gap value of less than 105.

38. (Previously Presented) The melt-pourable explosive composition of claim 15, wherein the melt-pourable explosive composition exhibits a card gap value of less than 85.

39. (Previously Presented) The melt-pourable explosive composition of claim 15, wherein the melt-pourable explosive composition exhibits a dent depth in a range of 0.713 cm to 0.872 cm.

40. (Previously Presented) The melt-pourable explosive composition of claim 15, wherein the melt-pourable explosive composition has a total energy of detonation of 11.6 kJ/cc to 14.2 kg/cc.

41. (Currently amended) A melt-pourable explosive composition comprising:
30 weight percent to 70 weight percent of ~~one or more organic binders comprising at least one member selected from the group consisting of a mononitro-substituted phenyl alkyl ether and a dinitro-substituted phenyl alkyl ether~~ an organic binder comprising 2,4-dinitroanisole, the one or more organic binders collectively exhibiting a total energy detonation lower than trinitrotoluene and collectively having a total melting point in a range of 80°C to 115°C;
5 weight percent to 35 weight percent of ~~one or more inorganic oxidizers~~ at least one inorganic oxidizer; and
5 weight percent to 35 weight percent of ~~one or more reactive metallic fuels~~ at least one reactive metallic fuel,
wherein the melt-pourable explosive composition is melt-pourable at a temperature in a range of 80°C to 115°C, undergoes an onset of thermal decomposition at a temperature that is at least 55.5°C higher than the temperature at which the melt-pourable explosive composition becomes pourable, and exhibits a card gap value of less than 105, a dent

depth in a range of 0.713 cm to 0.872 cm, and a total energy of detonation of 11.6 kJ/cc to 14.2 kJ/cc.

42. (Previously Presented) The melt-pourable explosive composition of claim 41, wherein the card gap value exhibited by the melt-pourable explosive composition is less than 85.

43. (Currently Amended) The melt-pourable explosive composition of claim 1, wherein the ~~one or more oxidizers comprise~~ at least one oxidizer comprises an inorganic oxidizer present in the melt-pourable explosive composition in a single modal particle size distribution in a range of 5 microns to 50 microns, the inorganic oxidizer constituting from 15 weight percent to 20 weight percent of the melt-pourable explosive composition.

44. (Currently Amended) The melt-pourable explosive composition of claim 15, wherein the ~~one or more inorganic oxidizers are~~ at least one inorganic oxidizer is present in the melt-pourable explosive composition in a single modal particle size distribution in a range of 5 microns to 50 microns, the ~~one or more inorganic oxidizers~~ at least one inorganic oxidizer constituting from 15 weight percent to 20 weight percent of the melt-pourable explosive composition.

45. (Currently amended) The melt-pourable explosive composition of claim 41, wherein the ~~one or more inorganic oxidizer~~ at least one inorganic oxidizer comprises an inorganic oxidizer present in the melt-pourable explosive composition in a single modal particle size distribution in a range of 5 microns to 50 microns, the inorganic oxidizer constituting from 15 weight percent to 20 weight percent of the melt-pourable explosive composition.

46. (Currently amended) The melt-pourable explosive composition of claim 1, wherein the ~~one or more oxidizers~~ at least one oxidizer comprises ammonium perchlorate.

47. (Currently amended) The melt-pourable explosive composition of claim 15, wherein the ~~one or more inorganic oxidizers~~ at least one inorganic oxidizer comprises ammonium perchlorate.

48. (Currently amended) The melt-pourable explosive composition of claim 41, wherein the ~~one or more inorganic oxidizers~~ at least one inorganic oxidizer comprises ammonium perchlorate.